

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB 03/04841A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01K1/34

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H01K H01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	US 4 623 815 A (BIERBAUER FRANZ-JOSEF ET AL) 18 November 1986 (1986-11-18) abstract	1,2,8, 10,13 3-7,9, 11,12
Y A	JP 59 119668 A (HAMAI DENKIYUU KOGYO KK) 10 July 1984 (1984-07-10) abstract	1,2,8, 10,13
A	US 4 935 660 A (GUREL MANFRED ET AL) 19 June 1990 (1990-06-19) the whole document	1-13
A	GB 1 340 870 A (SEWELL M; ELECTRONIC CONTROL SURVEILLANCE) 19 December 1973 (1973-12-19) the whole document	1
-/--		

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *&* document member of the same patent family

Date of the actual completion of the international search

30 January 2004

Date of mailing of the international search report

05/02/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Zuccatti, S

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/IB 03/04841

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 536 831 A (ENGLISH GEORGE ET AL) 20 August 1985 (1985-08-20) figures 4,5 -----	1
A	US 5 404 069 A (OLWERT RONALD J ET AL) 4 April 1995 (1995-04-04) figure 5 -----	1, 11, 13
A	US 5 670 840 A (LANESE GUSTINO J ET AL) 23 September 1997 (1997-09-23) figure 1 -----	1, 11, 13

INTERNATIONAL SEARCH REPORT

International App. on No.
PCT/IB 03/04841

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4623815	A	18-11-1986	DE 8310715 U1	22-12-1983
			DE 3469107 D1	03-03-1988
			EP 0121819 A2	17-10-1984
JP 59119668	A	10-07-1984	NONE	
US 4935660	A	19-06-1990	DE 8803881 U1	11-05-1988
			CA 1309451 C	27-10-1992
			DE 58907732 D1	07-07-1994
			EP 0334208 A2	27-09-1989
GB 1340870	A	19-12-1973	CA 939721 A1	08-01-1974
			DE 2165784 A1	20-07-1972
			FR 2121112 A5	18-08-1972
			IT 944451 B	20-04-1973
			NL 7117837 A	04-07-1972
US 4536831	A	20-08-1985	AU 588534 B2	21-09-1989
			AU 4466285 A	16-01-1986
			CA 1244389 A1	08-11-1988
			DE 3581669 D1	14-03-1991
			EP 0168017 A2	15-01-1986
			ZA 8504952 A	26-02-1986
US 5404069	A	04-04-1995	CA 2089276 A1	28-09-1993
			DE 69315108 D1	18-12-1997
			DE 69315108 T2	04-06-1998
			EP 0562871 A1	29-09-1993
			ES 2108818 T3	01-01-1998
			JP 2677941 B2	17-11-1997
			JP 6044949 A	18-02-1994
			KR 123797 B1	09-12-1997
			MX 9301734 A1	01-09-1993
US 5670840	A	23-09-1997	CA 2108408 A1	13-05-1994
			DE 4337807 A1	19-05-1994
			FR 2697944 A1	13-05-1994
			GB 2272569 A ,B	18-05-1994
			JP 6203811 A	22-07-1994